

OIB - P-3 Orion 04/03/17 Science Report

Aircraft:

[P-3 Orion](#) ([See full schedule](#))

Date:

Monday, April 3, 2017

Mission:

OIB

Mission Location:

Greenland

Mission Summary:

OIB completed the baseline priority Zachariae/79N mission. This mission reoccupies the centerlines of the Zachariae and 79N glaciers, plus a grid of six ascending ICESat-1 tracks similar to one originally flown by OIB in 2012, but moved upstream by two ICESat-1 groundtracks to account for the breakup of the lower ice shelf. We also overflew a pair of PROMICE sites immediately north of 79N Glacier, point KPCL was overflown at 16:11:59Z and point KPCU at 16:15:05:Z. The transit to and from the northeast region was along a historical ATM line dating back to 1994. For 2017 this mission was configured as a transit flight between Thule and Longyearbyen, and as such it also contained a sea ice survey across the Fram Strait, including overflights of four underwater moorings with upward-looking sonar (ULS) sensors. These moorings are known as F11, F12, F13, and F14. Overflight times were: F11: 17:42:45Z; F12: 17:40:01Z; F13: 17:37:16Z; F14: 17:33:00Z.

The weather forecast for the mission showed clear skies which is what we experienced on flight, all instruments onboard worked well.

Data volumes

ATM: T5: 25 Gb T6: 138 Gb

FLIR: 14 Gb

Cambot: 46 Gb

KT19: 10 Mb

DMS: 137 Gb

Snow/Ku radar: 1.33 Tb

MCoRDS: 1.3 Tb

Accumulation radar: 973 Gb (Previous noise problem improved)

data on: 1125

data off: 1803

Submitted by:

Nathan T. Kurtz on 04/03/17

File:

 [zac79N.pdf](#)

Related Flight Report:

P-3 Orion 04/03/17

Flight Number:

Science Flight #15- Zachariae 79N Fram Straight and BGTL ENSB Transit

Payload Configuration:

OIB Arctic

Nav Data Collected:

No

Total Flight Time:

7.4 hours

Submitted by:

Kelly Griffin on 04/05/17

Flight Segments:

From:	BGTL	To:	ENSB
Start:	04/03/17 14:15 Z	Finish:	04/03/17 21:40 Z
Flight Time:	7.4 hours		
Log Number:	17P006	PI:	Nathan Kurtz

Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program
Purpose of Flight:	Science
Comments:	This was a combined science and transit flight to reposition the P-3 at Svalbard Airport in Longyearbyen, Norway

Flight Hour Summary:

	17P006
Flight Hours Approved in SOFRS	333.6
Total Used	307.1
Total Remaining	26.5

17P006 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
02/24/17	Airworthiness Test Flight	Check	1	1	332.6
02/26/17	Project Test Flight #1	Check	4.9	5.9	327.7
02/27/17	Project Test Flight #2	Check	3	8.9	324.7
03/07/17	Transit Flight	Transit	8.2	17.1	316.5
03/09/17	Science Flight #1 - North Pole Transect	Science	8	25.1	308.5
03/10/17	Science Flight #2 - Laxon Line	Science	8.5	33.6	300
03/11/17 - 03/12/17	Science Flight #3 - Chukchi West Line	Science	8	41.6	292
03/12/17 - 03/13/17	Science Flight #4 - North Beaufort Loop Line	Science	8.1	49.7	283.9
03/14/17 - 03/15/17	Science Flight #5 - East Beaufort Loop Line	Science	8	57.7	275.9
03/20/17	Science Flight #6 - Sea Ice South Basin Transect (to Thule)	Science	8.1	65.8	267.8
03/22/17	Science Flight #7 - North Flux 02	Science	7.9	73.7	259.9
03/23/17	Science Flight #8 - Zig Zag West Line	Science	7.9	81.6	252
03/24/17	Science Flight #9 - CryoVEx Line	Science	5.8	87.4	246.2
03/27/17	Science Flight #10 - Northwest Coastal A Line	Science	7.4	94.8	238.8
03/28/17	Science Flight #11 - North Central Cap 01 Line	Science	7.6	102.4	231.2
03/29/17	Science Flight #12 - Ellesemere Island 01 Line	Science	7.6	110	223.6
03/30/17	Science Flight #13 - Ellesemere South Line	Science	7.9	117.9	215.7
03/31/17	Science Flight #14- Alexander-Petermann Line	Science	6.5	124.4	209.2
04/03/17	Science Flight #15- Zachariae 79N Fram Straight and BGTL ENSB Transit	Science	7.4	131.8	201.8
04/05/17	Science Flight #16 - Svalbard North Line (High Priority)	Science	7	138.8	194.8
04/06/17	Science Flight #17- Svalbard South Mission (High Priority)	Science	8.5	147.3	186.3
04/07/17	Science Flight #18- Combined Zig Zag East Mission and Transit ENSB to BGTL	Science	8.3	155.6	178
04/10/17	Science Flight #19- North Central Gap 3	Science	7.8	163.4	170.2
04/11/17	Science Flight #20- CryoVex 2 (High Priority)	Science	7.8	171.2	162.4

04/12/17	Science Flight #21-Northwest Coastal C	Science	7.2	178.4	155.2
04/13/17	Science Flight #22-North Glaciers 02 Prime (High Priority)	Science	8.2	186.6	147
04/14/17	Science Flight #23-IceSat-2 North/CryoSat-2 SARIn	Science	7	193.6	140
04/17/17	Science Flight #24-Humboldt 01(High Priority)	Science	7.8	201.4	132.2
04/19/17	Science Flight #25-Sea Ice - South Canada Basin (MediumPriority)	Science	7.8	209.2	124.4
04/20/17	Transit Flight to Kangerlussuaq	Transit	3	212.2	121.4
04/21/17	Science Flight #26-Southeast Coastal	Science	8	220.2	113.4
04/22/17	Science Flight #27-Helheim-Kangerd	Science	7.8	228	105.6
04/24/17	Science Flight #28-Geikie 01 (High Priority)	Science	8	236	97.6
04/26/17	Science Flight #29-Devon-Bylot (Medium Priority)	Science	7.9	243.9	89.7
04/28/17	Science Flight #30-Penny 01 (Medium Priority)	Science	6	249.9	83.7
04/29/17	Science Flight #31-Thomas - Jakobshavn 01	Science	8.4	258.3	75.3
05/01/17	Science Flight #32-Thomas - Jakobshavn-Eqip-Store	Science	8.4	266.7	66.9
05/02/17	Science Flight #33-Thomas - ICESat-2 Central	Science	7.9	274.6	59
05/03/17	Science Flight #34-Thomas - Southwest Coastal A	Science	8.3	282.9	50.7
05/05/17	Science Flight #35-Helheim-Kangerdlugssuaq Gap B (High Priority)	Science	8.2	291.1	42.5
05/06/17	Science Flight #36-Helheim-K-EGIG-Summit	Science	8	299.1	34.5
05/08/17	Science Flight #37-Southeast Glaciers 01 (High Priority)	Science	8	307.1	26.5

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Source URL: https://airbornescience.nasa.gov/science_reports/OIB_-_P-3_Orion_04_03_17_Science_Report